



EPA KEY CONTACTS FORM

OMB Number: 2030-0020
Expiration Date: 06/30/2024

Authorized Representative: *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

Name:	Prefix:	<input type="text"/>	First Name:	<input type="text" value="Terri"/>	Middle Name:	<input type="text"/>
	Last Name:	<input type="text" value="Daniels"/>			Suffix:	<input type="text"/>
Title:	<input type="text" value="Director of Grants"/>					
Complete Address:						
Street1:	<input type="text" value="2 Woodward Avenue, Suite 1026"/>					
Street2:	<input type="text"/>					
City:	<input type="text" value="Detroit"/>	State:	<input type="text" value="MI: Michigan"/>			
Zip / Postal Code:	<input type="text" value="48226"/>	Country:	<input type="text" value="USA: UNITED STATES"/>			
Phone Number:	<input type="text" value="313-610-0457"/>			Fax Number:	<input type="text"/>	
E-mail Address:	<input type="text" value="danielste@detroitmi.gov"/>					

Payee: *Individual authorized to accept payments.*

Name:	Prefix:	<input type="text"/>	First Name:	<input type="text" value="Keisha"/>	Middle Name:	<input type="text"/>
	Last Name:	<input type="text" value="Pierce"/>			Suffix:	<input type="text"/>
Title:	<input type="text" value="Director of Grants Accounting"/>					
Complete Address:						
Street1:	<input type="text" value="2 Woodward Avenue, 1026"/>					
Street2:	<input type="text"/>					
City:	<input type="text" value="Detroit"/>	State:	<input type="text" value="MI: Michigan"/>			
Zip / Postal Code:	<input type="text" value="48226"/>	Country:	<input type="text" value="USA: UNITED STATES"/>			
Phone Number:	<input type="text" value="734-272-7386"/>			Fax Number:	<input type="text"/>	
E-mail Address:	<input type="text" value="piercek@detroitmi.gov"/>					

Administrative Contact: *Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc).*

Name:	Prefix:	<input type="text"/>	First Name:	<input type="text" value="Terri"/>	Middle Name:	<input type="text"/>
	Last Name:	<input type="text" value="Daniels"/>			Suffix:	<input type="text"/>
Title:	<input type="text"/>					
Complete Address:						
Street1:	<input type="text" value="2 Woodward Ave., Suite 1026"/>					
Street2:	<input type="text"/>					
City:	<input type="text" value="Detroit"/>	State:	<input type="text" value="MI: Michigan"/>			
Zip / Postal Code:	<input type="text" value="48226"/>	Country:	<input type="text" value="USA: UNITED STATES"/>			
Phone Number:	<input type="text" value="3132249271"/>			Fax Number:	<input type="text"/>	
E-mail Address:	<input type="text" value="danielste@detroitmi.gov"/>					

EPA KEY CONTACTS FORM

Project Manager: *Individual responsible for the technical completion of the proposed work.*

Name: Prefix: **First Name:** **Middle Name:**
Last Name: **Suffix:**
Title:

Complete Address:

Street1:
Street2:
City: **State:**
Zip / Postal Code: **Country:**
Phone Number: **Fax Number:**
E-mail Address:

Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

I. A. Applicant/Recipient (Name, Address, City, State, Zip Code)

Name:

Address:

City:

State: Zip Code:

B. DUNS No.

II. Is the applicant currently receiving EPA Assistance? ☒ Yes ☐ No

III. List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

NA

IV. List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective actions taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

NA

V. List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3))

NA

VI. Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below.

☐ Yes ☒ No

a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).

☐ Yes ☐ No

b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.

VII. Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its program or activities? (40 C.F.R. 5.140 and 7.95)

☒ Yes ☐ No

a. Do the methods of notice accommodate those with impaired vision or hearing?

☒ Yes ☐ No

b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications?

☒ Yes ☐ No

c. Does the notice identify a designated civil rights coordinator?

☒ Yes ☐ No

VIII. Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. 7.85(a))

☒ Yes ☐ No

IX. Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166)

☒ Yes ☐ No

- X. If the applicant is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator.

No

- XI. If the applicant is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet Address for, or a copy of, the procedures.

<https://detroitmi.gov/departments/civil-rights-inclusion-opportunity-department>

For the Applicant/Recipient

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.

A. Signature of Authorized Official

Karen C Brown

B. Title of Authorized Official

Director of Grants

C. Date

03/25/2022

For the U.S. Environmental Protection Agency

I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.

A. *Signature of Authorized EPA Official

B. Title of Authorized Official

C. Date

*** See Instructions**

Instructions for EPA FORM 4700-4 (Rev. 06/2014)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973. The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification. * Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.

Other Attachment File(s)

* Mandatory Other Attachment Filename: 1235-Partner Letter of Commitment EPA BSEED Grant.

Add Mandatory Other Attachment

Delete Mandatory Other Attachment

View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

Delete Optional Other Attachment

View Optional Other Attachment

Project Narrative File(s)

* **Mandatory Project Narrative File Filename:**

[Add Mandatory Project Narrative File](#)

[Delete Mandatory Project Narrative File](#)

[View Mandatory Project Narrative File](#)

To add more Project Narrative File attachments, please use the attachment buttons below.

[Add Optional Project Narrative File](#)

[Delete Optional Project Narrative File](#)

[View Optional Project Narrative File](#)

Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

03/25/2022

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

MI

8. APPLICANT INFORMATION:

* a. Legal Name:

City of Detroit

* b. Employer/Taxpayer Identification Number (EIN/TIN):

38-6004606

* c. Organizational DUNS:

0065306610000

d. Address:

* Street1:

2 Woodward Ave, Ste 1162

Street2:

* City:

Detroit

County/Parish:

* State:

MI: Michigan

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

48226-2503

e. Organizational Unit:

Department Name:

BSEED-EA

Division Name:

Environmental Affairs

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Mr.

* First Name:

Malik

Middle Name:

* Last Name:

Johnson

Suffix:

Title: Environmental Specialist

Organizational Affiliation:

City of Detroit BSEED-EA

* Telephone Number:

313-350-1832

Fax Number:

* Email:

johnsonmal@detroitmi.gov

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

C: City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.034

CFDA Title:

Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities
Relating to the Clean Air Act

* 12. Funding Opportunity Number:

EPA-OAR-OAQPS-22-01

* Title:

Enhanced Air Quality Monitoring for Communities

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Establish the first comprehensive, citywide particulate matter monitoring system in Detroit, MI

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:**

* a. Applicant 13, 14

* b. Program/Project 13, 14

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date: 10/01/2022

* b. End Date: 04/30/2025

18. Estimated Funding (\$):

* a. Federal	482,265.00
* b. Applicant	0.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	482,265.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name: Terri

Middle Name:

* Last Name: Daniels

Suffix:

* Title: Director of Grants

* Telephone Number: 313-610-0457 Fax Number:

* Email: danielste@detroitmi.gov

* Signature of Authorized Representative: Karen C Brown * Date Signed: 03/25/2022

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2022

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Enhanced Air Quality Monitoring for Communities	66.034	\$ 0.00	\$ 0.00	\$ 482,265.00	\$ 0.00	\$ 482,265.00
2.						
3.						
4.						
5. Totals		\$ 0.00	\$ 0.00	\$ 482,265.00	\$ 0.00	\$ 482,265.00

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	Enhanced Air Quality Monitoring for Communities				
a. Personnel	\$ 0.00	\$	\$	\$	\$ 0.00
b. Fringe Benefits	0.00				0.00
c. Travel	0.00				0.00
d. Equipment	168,030.00				168,030.00
e. Supplies	8,896.00				8,896.00
f. Contractual	305,339.00				305,339.00
g. Construction	0.00				0.00
h. Other	0.00				0.00
i. Total Direct Charges (sum of 6a-6h)	482,265.00				\$ 482,265.00
j. Indirect Charges	0.00				\$ 0.00
k. TOTALS (sum of 6i and 6j)	\$ 482,265.00	\$	\$	\$	\$ 482,265.00
7. Program Income	\$ 0.00	\$	\$	\$	\$ 0.00

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Prescribed by OMB (Circular A -102) Page 1A

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	Enhanced Air Quality Monitoring for Communities	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)		\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 257,460.10	\$ 172,687.60	\$ 39,657.50	\$ 22,157.50	\$ 22,957.50
14. Non-Federal	\$ 0.00	0.00	0.00	0.00	0.00
15. TOTAL (sum of lines 13 and 14)	\$ 257,460.10	\$ 172,687.60	\$ 39,657.50	\$ 22,157.50	\$ 22,957.50

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b)First	(c) Second	(d) Third	(e) Fourth
16.	Enhanced Air Quality Monitoring for Communities	\$ 112,566.00	\$ 112,239.00	\$	\$
17.					
18.					
19.					
20. TOTAL (sum of lines 16 - 19)		\$ 112,566.00	\$ 112,239.00	\$	\$

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: 482,265.00	22. Indirect Charges: 0
23. Remarks:	

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Prescribed by OMB (Circular A -102) Page 2

Manifest for Grant Application # GRANT13580245

Grant Application XML file (total 1):

1. GrantApplication.xml. (size 26040 bytes)

Forms Included in Zip File(total 6):

1. Form ProjectNarrativeAttachments_1_2-V1.2.pdf (size 16029 bytes)
2. Form SF424_3_0-V3.0.pdf (size 24131 bytes)
3. Form SF424A-V1.0.pdf (size 23052 bytes)
4. Form EPA4700_4_3_0-V3.0.pdf (size 22644 bytes)
5. Form OtherNarrativeAttachments_1_2-V1.2.pdf (size 15916 bytes)
6. Form EPA_KeyContacts_2_0-V2.0.pdf (size 37393 bytes)

Attachments Included in Zip File (total 5):

1. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1235-Partner Letter of Commitment EPA BSEED Grant.pdf application/pdf (size 101753 bytes)
2. ProjectNarrativeAttachments_1_2 ProjectNarrativeAttachments_1_2-Attachments-1234-Project Narrative Enhanced Air Quality Application Detroit MI.pdf application/pdf (size 566229 bytes)
3. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1237-Resumes Partner [EDI].pdf application/pdf (size 318004 bytes)
4. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1236-Quality Assurance Statement.pdf application/pdf (size 113491 bytes)
5. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1238-Resumes-Detroit Staff.pdf application/pdf (size 180753 bytes)



March 22, 2022

Raymond Scott, Deputy Director
City of Detroit Buildings, Safety, Engineering, and Environmental Department
Coleman A. Young Municipal Center
2 Woodward Avenue Suite 401
Detroit, MI 48226

Dear Mr. Scott:

I write on behalf of the Green Door Initiative in support of the City of Detroit Buildings, Safety, Engineering, and Environmental Department (BSEED) proposal to the Environmental Protection Agency for a grant to fund a project entitled "City of Detroit City Wide Particulate Matter Air Quality Monitoring Network." We support the grant application and its focus on establishing the first comprehensive city-wide particulate matter monitoring network with near-real time reporting within the City of Detroit.

Green Door Initiative (GDI) launched in August 2010 and was founded by Donele Wilkins, a lifelong Detroit resident, change-agent, and community activist. The goal of GDI is to change the discourse for Environmental Justice (EJ) in the city of Detroit through community engagement, empowerment, and education. Green Door Initiative's (GDI) mission is to ensure that everyone is environmentally literate, capable of promoting and living out a sustainable lifestyle regardless of race, income, and zip code. GDI plans to facilitate the revitalization, rebuilding, and restoring of neighborhoods, particularly in low-income, people of color and underserved areas. We aim to achieve environmental and economic justice, and to ensure that local residents and justice involved citizens are empowered; and equipped to live healthy, sustainable lives fully participating in the green economy.

GDI's commitment to serve Detroiters drives its work. As a snapshot – GDI successfully launched an environmental careers workforce training program to help low-income and formerly incarcerated residents transition into family-sustaining employment in the green collar sector. The workforce training program has trained over 500 residents, with a 96% job placement rate. GDI has also provided more than 25,000 hours of general environmental safety, health and hazard awareness training to Detroit area residents. Developing a city-wide particulate matter monitoring network with real-time reporting, and engaging residents with the data and subsequent air quality solutions, is in line with GDI's goals.

This partnership builds on a foundation of shared participation in the work of the Air Quality Sensor Learning Collaborative. GDI acknowledges a specific role we will fulfill in this partnership. If this proposal is funded, we will bring our staff's 50+ years of collective wisdom to the following activities:

- Conduct a training with residents to prepare them for engaging with the City's air quality data.
- Create and implement a dissemination and outreach strategy for the air quality data.
- Create new and/or foster existing mechanisms through which residents and local government stakeholders and decision-makers can co-create solutions to improve air quality.

We look forward to working with you to monitor our air, improve air quality, and reduce health disparities in Detroit.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Donele Wilkins', with a stylized, cursive script.

Donele Wilkins
President & CEO
Green Door Initiative

**City of Detroit EPA-OAR-OAQPS-22-01
Enhanced Air Monitoring for Communities Application**

I. Cover Page

Project Title: Detroit's Citywide Particulate Matter Air Quality Monitoring Network

Applicant Information:

Address:	Primary Contact: Malik Johnson
City of Detroit	Email: johnsonmal@detroitmi.gov
2 Woodward Avenue	Phone: 313-224-9391
Detroit, MI 48226	DUNS Number: 006530661

Set Aside: No set aside

Brief Description of Applicant Organization: The City of Detroit is the local municipal government tasked with the support and protection of the safety, health, and welfare of its residents through policy and permitting. The City of Detroit creates, maintains, and enforces all local standards of equity, health, and safety, often working as the liaison between its residents and businesses or state and federal governmental agencies.

Project Partner(s) (if applicable):

Partner Organization: Green Door Initiative (GDI)
Partner Primary Contact Name: Donele Wilkins

Project Location: City of Detroit

Air Pollutant Scope: Particulate pollution (PM_{2.5} and PM₁₀) including PM precursors

Budget Summary

EPA Funding Requested	Total Project Cost
\$482,265	\$482,265

Project Period: October 2022 through April 2025

Short Project Description: Establish the City of Detroit's first comprehensive city-wide particulate matter monitoring network with near-real time reporting. Data collected from the network will be used to educate Detroit's citizens and policy makers and expand network parameters while targeting areas of highest impact.

II. Workplan

1. Project Summary and Approach:

1A. Overall Project: The City of Detroit seeks to establish an air quality monitor network throughout the entire city to monitor the levels of particulate matter, PM₁₀ and PM_{2.5}. To best serve Detroit's residents and provide as accurate data as possible, funds from this grant will be used to obtain federal equivalent monitors that will be used at the determined locations, maintained and calibrated by a trained professional. The City will also use funds from this grant to retain a qualified environmental consultant, who will work with the city to establish criteria for placement of monitors, which will be maintained beyond this project. The consultant will also draft project updates and prepare a final report based on the data gathered, which will be made available to residents and city officials. Monitors will be installed at public places such as libraries, fire stations and police stations, which are close to residential areas and can provide a secure location free of charge with access to power and internet. Some funds from the EPA grant will be used to provide additional security measures such as fencing and anchoring when the monitors purchased with grant funds are installed.

The City of Detroit will create a city-wide network of monitors to measure and report levels of particulate matter to its citizens in near real-time. The network will add monitoring capacity to neighborhoods and areas of concern that have been underserved when compared with other parts of the city. All data collected will be made available to the public through the City's website. It will also be presented at biannual meetings held within each of the 7 City Council Districts. The City will also utilize data generated by existing monitors in the city installed and operated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Combining data from these with data from the monitors to be purchased by the City with EPA funds, will create a network that provides cost-efficient coverage throughout Detroit. The City will assign a project manager from its Building, Safety, Engineering and Environmental Division to oversee the project and coordinate BSEED's communication and joint programming with the Green Door Initiative (GDI).

GDI, the City's lead partner in this project, will lead community education and outreach. A community working group will be established within each council district to serve as a resource for residents. Meetings will be held every six months from the start date of data collection. GDI will also recruit and train Detroit residents from GDI's Environmental Careers Workforce Training Program to handle the installation and maintenance of the monitors.

Education: GDI will train residents on the following topics to prepare them for understanding and engaging with the City's air quality data: the relationship between air quality and health, the basics and benefits of air monitoring, what residents can do about air quality, and advocating for safe practices from industries.

Outreach and Engagement: GDI will also create and implement a dissemination and outreach strategy for disseminating air quality data. This will include coordinating with the City for 'data dumps.' Information will be shared quarterly at the standing meetings held in each of Detroit's 7 City Council districts.

GDI will also provide residents with information on the basics of environmental policy and familiarize them with the roles and responsibilities of local, state and federal governments for

environmental and public health protection. For example, they will become knowledgeable about the Clean Air Act, including the National Ambient Air Quality Standards, and well versed in other relevant air quality regulations. They will become aware of the process for reporting environmental releases. GDI will help residents create new and/or foster existing mechanisms through which they can work with local government stakeholders and decision-makers to co-create solutions to improve air quality.

1B. Project Significance Detroit has had longstanding and ongoing issues with air quality. Southwest Detroit currently has six air quality sensor locations that are managed by EGLE due to the neighborhood's concentration of high-impact industrial sites. Permits-to-Install (state permits for emissions) have increased by nearly 25% in the last five years, with the city of Detroit becoming the largest concentration of emission permits in Michigan. The proposed project will be the City's initial step in establishing the City's first ongoing near real-time air quality network. Based on the results of this project, the network will ultimately be expanded to cover additional pollutants and neighborhoods that have higher potential for poor air quality. The City of Detroit's 2019 Sustainability Action Agenda seeks to promote sustainability and environmental justice, specifically calls for the development of a municipal air quality monitoring network. The results of the EPA funded air quality monitoring project will also be used to develop enforcement policies and practices. These policies will enable the City to address the comparatively high levels of chronic respiratory illness that affect Detroit residents that may be related to airborne pollution from industries and historical uses with Detroit. All data that is collected will be available to Detroit residents. The City of Detroit and its community partners will educate residents in using the data to advocate for better standards from surrounding industries. The near real time network will also allow the City of Detroit to inform at-risk residents regarding outdoor recreation and potential exposures. Per expected project outcomes, data will be used as a basis for City leadership to address air quality concerns and develop policies.

2. Community Involvement

2A. Community Partnership: A sub-award will be made to The Green Door Initiative (GDI), the City of Detroit's partner on this project. GDI is a local non-profit with extensive experience doing citywide education, outreach and engagement work and employment training. GDI focuses on promoting a sustainable lifestyle for Detroit residents, ensuring environmental justice, and providing education and guidance for youth and those seeking to develop skills within the environmental sector. Specifically, GDI will be responsible for training residents on how to utilize the data from the air quality network, creating and implementing outreach programs, and teaching local residents about local, state and federal environmental policy.

In addition to GDI's program manager, GDI will designate two staff members (Outreach/Trainer and a Project Assistant) to coordinate the community training and outreach efforts for the proposed project, leveraging the staff's decades of experience in community outreach on environmental health. GDI will train residents on the following topics to prepare them for understanding and engaging with the City's air quality data:

The relationship between air quality and health: includes asthma, heart disease, Covid-19, and birth outcomes. This topic will include information about the sources of air pollution, like industry and traffic. **The basics of air monitoring:** what to know about air quality and

monitoring in participants' neighborhoods and how to access the monitoring data. **The benefits of monitoring our air:** an overview of what air monitoring is, why we monitor our air, and what we are looking for when we monitor. **What we can do about air quality:** information about reporting environmental releases, disaster response, toxic use reduction, and persistent bioaccumulative toxins and navigating the EPA's Toxic Release Inventory (TRI) **Advocating for safe practices from industries in host communities:** Share tools, language, and specifics to bring to the table when speaking with industry representatives and permitting officials when advocating for clean air in their communities. **Policy 101:** GDI will help participants learn the basics of environmental policy and become familiar with the roles and responsibilities of local, state and federal government for environmental protection and public health. It will teach them about the Clean Air Act, including the National Ambient Air Quality Standard and other air quality regulations, as well as the process for reporting environmental releases. This will prepare residents to engage local government and decision-makers to co-create policies and other solutions to improve air quality.

2B. Community Engagement:

GDI will lead community engagement for this project. It will create and implement a dissemination and outreach strategy for the air quality data. This will include coordinating with the City for data-sharing sessions, as well as presenting and reviewing air quality data at the standing quarterly meetings held in each of the 7 Detroit City Council districts. This work builds on the groundwork laid by the City's Green Task Force and its Office of Sustainability.

The City of Detroit and its partners have a history of responding proactively to air quality concerns expressed by residents. The city passed a bulk solid materials ordinance in 2017 to address fugitive dust concerns. This ordinance has led to enforcement of fugitive dust, specifically PM10, and mitigation practices for 40 sites throughout Detroit. The City of Detroit has also been instrumental in developing an ongoing air quality learning collaborative, which is one of the largest community-run air quality work groups in the city.

In addition, Detroit City Councilman Scott Benson convenes Detroit's Green Task Force, a partnership between industry and community members that focuses on Detroit's environment, sustainability, and environmental justice and continues to be an avenue for engaging residents about the air quality data, monitoring, and solutions. This proposed EPA-Funded project was developed in response to that need for enforcement and monitoring voiced by residents during Task Force meetings. The City of Detroit's Office of Sustainability worked with the community to develop a Sustainability Action Agenda which is now used to shape municipal policy. It was completed by engaging a diverse array of Detroiters in every neighborhood across the city – with a particular emphasis on communities historically underrepresented in planning processes, reaching out to thousands of Detroiters of various racial, economic, and social backgrounds.

3. Environmental Justice and Underserved Communities:

Poor Air Quality and Relation to Concentration of Industry and Air Emission: Detroit and Wayne County host Michigan's most polluting facilities. The age of Detroit's infrastructure and housing stock (73.9% of Detroit's housing was built before 1955 therefore containing paint with a high proportion of lead.^[1] This, along with Detroit's 80,000 lead service lines in the city's distribution system^[2], puts children at risk for lead exposure. Proximity to highways, industrial

activities, and brownfield sites are an added exposure risk for air, soil, and water pollution. These exposures have known health and learning impacts for the children who experience them. The City of Detroit has 218 active state permits for emissions, called Permit-to-Install (PTIs), which is also the highest concentration of permits in any city in Michigan. Additionally, these permits constitute 33.3% of all active permits within Wayne County. High rates of emissions contribute heavily to poor air quality and health related issues. Southwest Detroit is currently heavily monitored by the State of Michigan and multiple community-run sensor networks, which has created a discrepancy in available air quality data across the whole City.

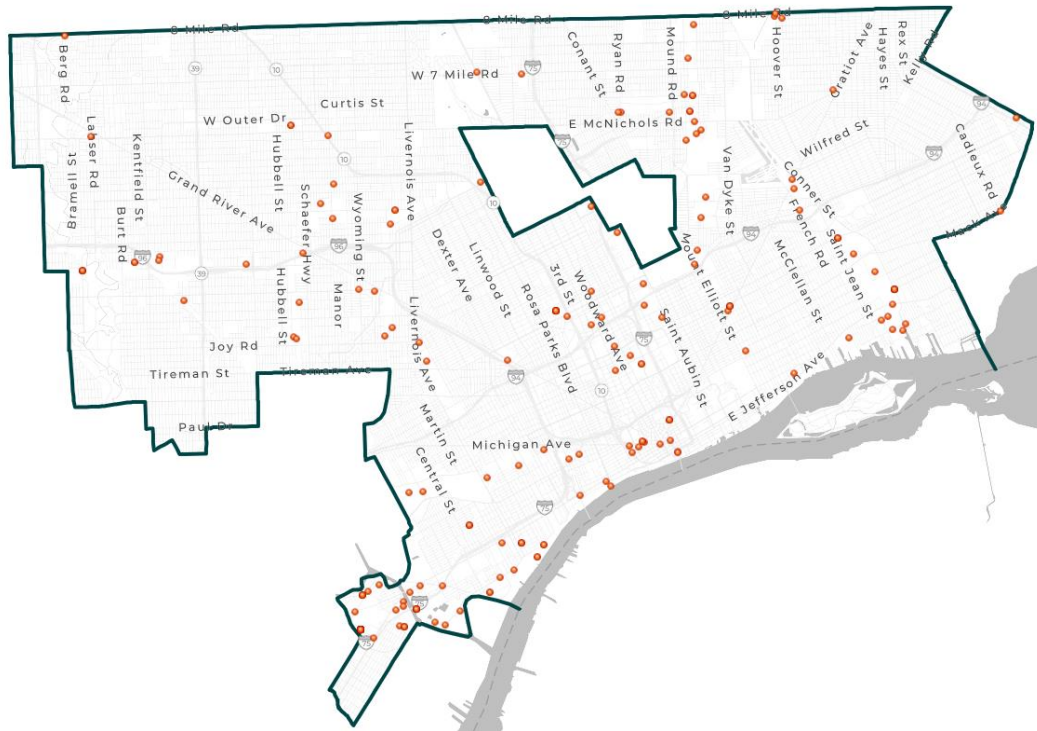


Fig 1. Location of all permitted stationary emission sites within Detroit

Medically underserved and Impacted Communities: Unsurprisingly, several public health disparities plague Detroit's most vulnerable at-risk residents, and these disparities have grown over time. As a result of some of the highest pollution levels in the country, 14.6% of Detroit children under 18 have asthma, which is 74% higher than the prevalence of children with asthma in Michigan as a whole, currently at 8.4%. In 2016, the prevalence of current asthma among adults was 29% higher in Detroit than in Michigan statewide. From 2017-2019, asthma prevalence among adults jumped to 16.2% in Detroit, which is 46% higher than in Michigan. whole.[5] Over 50,000 Detroit children suffer from lead poisoning. In some areas of the city, infant mortality is at 14 for every 1,000 births compared to the state with 6 deaths for every 1,000 births.

Between 2017 and 2019, 71 Detroit residents died due to asthma. This rate is three times the statewide rate in Michigan during the same time period. In 2019, there were 1,458 asthma hospitalizations for Detroit residents, or a rate of 20.3 per 10,000 population. This hospitalization rate was four times the rate in Michigan. Likewise, the asthma hospitalization rate for Detroit

children from 2016-2019 was at least two times higher than Michigan statewide rate for children during that same period. The rate of asthma hospitalizations among Detroit children in 2019 was 32.4 per 10,000.

It is well established that poor air quality can trigger asthma and worsen symptoms. Reducing exposure to environmental asthma triggers and creating asthma-friendly spaces is crucial. This is particularly important within the school environment where kids spend most of their day.

Childhood asthma is also of concern given that it is a predictor for adverse health outcomes of children who contract COVID-19. Detroit has among the highest COVID-19 rates per capita in the state. Historically underserved populations often bear enormous burdens derived from pollution sources, including high asthma rates and, most recently, high COVID-19 death rates.

Infant mortality, rates of asthma, lead poisoning, and cancer are significantly greater in Detroit compared to Michigan's overall rates. The coronavirus pandemic has highlighted the disparate impacts commonly experienced in Black and Brown communities. In August of 2021, Michigan was ranked 5th highest for child COVID cases in the country. Data shows that though African American and Hispanic children combined make up approximately 25% of Michigan children under 21 years old, they account for 52% of the children who developed multisystem inflammatory syndrome, or MIS-C, a condition linked to COVID19 where children's organs become inflamed. This life-threatening outcome has been more prevalent in children with underlying illnesses such as asthma, which is also linked to air quality.

Approximately 80% of the city of Detroit is considered a medically underserved area (MUA) as defined by the Health Resources and Service Administration based upon the criteria of population to provider ratio, percent of population below poverty threshold, percent of population over 65 years old, and infant mortality rate.

Economical Impoverished and Disproportionate Impacted Populations: According to the 2020 United States Census, 35% of Detroit's population lives below the federal poverty line. In comparison, 12.6% of the population of Michigan live below the poverty line. Median household income for Detroit residents is \$30,894 which is nearly 50% lower than the median household income of Michigan as a whole.

Historically Underserved Populations: Detroit's population is largely composed of historically underserved populations. 78.3% of the reported population is Black or African American, 7.7% Hispanic or Latino, and 52.6% of the population is female. These groups are historically underserved regarding access to medical resources, clean affordable housing, and education.

COVID-19 Related Cases and Deaths: As of March 4, 2022, Detroit has one of the single highest concentrations of confirmed COVID related cases at 100,000+ confirmed cases. 10% of all state fatalities due to COVID were reported within Detroit, disproportionately high compared to the 1.6% fatality rate within Michigan. The pandemic has curtailed the City's forward momentum, sharply undermining key social and economic gains. Detroit's residents experienced the impacts of a municipal bankruptcy, followed by a long and hard-fought recovery, only to have that recovery stalled in 2020 by a global pandemic which has had disproportionately negative impacts on black communities.

4. Environmental Results—Outcomes, Outputs and Performance Measures

4A. Expected Project Outputs and Outcomes: All outcomes and outputs from this project are to be utilized to ensure clean and healthy air for all residents of Detroit in line with Goal 2 of the EPA 2022-2026 Strategic Plan to develop decisive action to advance environmental justice and civil rights specifically by addressing objective 2.3 of the plan, as we strengthen civil rights enforcement in communities with environmental justice concerns. The City of Detroit is seeking to utilize this project to improve air quality and reduce localized pollution and health impacts for underserved communities in line with objective 4.1 of the EPA 2022-2026 Strategic Plan. All outcomes will work to support Goal 2 of Detroit's 2019 Sustainability Action Agenda, Improve Air Quality and Reduce Exposure to Pollution, as endorsed by Detroit's Mayor.

Project Outputs: The City of Detroit will deploy particulate matter air quality monitoring equipment at 5 to 7 sites, as dictated by availability of equipment, by spring of 2023. Upon full deployment of PM monitoring equipment, data will be collected for a near real-time monitoring reporting website that will be developed and deployed by summer 2023. Community air quality workgroups will be established by fall 2022 to promote community involvement and information exchanges. Biannual information sessions and project updates will be held in each city council district starting in fall 2023. Quarterly reports to the EPA and a report of expected conclusions of project to the EPA within 120 days of expected project end date of Fall 2025 shall be provided as part of all reporting requirements. A city-wide assessment of particulate matter air pollution, including a full breakdown of levels by city council district and communities, will be developed and be made available by fall 2025.

Short-Term and Long-Term Outcomes:

Short Term Outcomes:

- Expand air quality monitoring network, including additional locations and pollutants
- Establish SO₂ and Ozone networks due to non-attainment status
- Identify community priorities for air quality
- Develop community scale response approach
- Provide training through GDI in the field of repair, data verification and maintenance
- Provide information to City leadership to develop air quality and reporting standards, including rationale for additional monitoring equipment and data analysis

Long Term Outcomes:

- Reduced amount of certain air pollutant emissions
- Reduced ambient concentrations of certain air pollutants
- Reduced human exposure to certain air pollutants
- Reduced negative health impact of poor air quality
- Established policies and protocols to detect violations and promote compliance with air quality standards (EPA Strategic Plan Objective 3.2)

4B. Performance Measures and Plan: Project status, outcomes, and outputs will be tracked and measured based upon projected timescales, as well as maintaining a comprehensive itemized list of expenditures. All data collected will be verified by a qualified environmental consultant prior to being made available to the public. The Environmental Consultant will analyze the data collected and prepare reports. These reports will be shared with the city government, other public

officials and the community to shape new policy and an action agenda to reduce particulate matter and other forms of air pollution.

4C. Timeline and Milestones:

	2022	2023	2024	2025
Anticipated Award	Sept-October			
Bidding for consultant (4 mos)	Bidding process, RFP, Council approval est. by Feb. 23			
Equipment Procurement (4 mos)	Obtain 7-9 monitors est. by Feb 23			
Monitor Location Recs (2 wks)	Discussion with DBA, Library, DPD, DFD	Consultant provides location recs, est. by March 23		
Installation (2 mos)		2/ week April - May 23		
Monitor maintenance and recalibration		Ongoing		
Community Outreach and Education: Round 0 (2 mos)	Initial outreach			
Website (7 mos)	Engage IT Team	Launch website May 23		
Data collection, verification, uploading		Ongoing		
Community Outreach and Education: Round 1 (6 mos from data collection)		Update		
Community Outreach and Education: Round 2 (6 mos from Round 1)			Update	
Community Outreach and Education: Round 3 (6 mos from Round 2)			Update	
Community Outreach and Education: Round 4 (6 mos from Round 3)				Final Report
Final Report and Outcomes (within 120 days of end date)				Send final report to EPA

5. Quality Assurance Statement: The City of Detroit is committed to make certain all data collected will be to federal standards for PM₁₀ and PM_{2.5}. All air quality monitors to be utilized will be verified federal equivalent method (FEM) monitors that are calibrated by a trained professional. All data collected and reported will be verified to all federal standards prior to deployment. Please see the attached Quality Assurance statement.

6. Programmatic Capability and Past Performance

6A. Past Performance: Both the City of Detroit and its partner GDI have strong track records of effective performance on grant-funded projects, thorough, timely reporting and utilizing these grants to leverage additional investment.

City of Detroit Grants and Reporting:

1) FY2015 US-EPA Site-specific assessment grant (FY15 #BF00E01519). This \$350,000 grant enabled the city to complete an environment assessment at Riverside Park. In FY 2019, a \$436,742 EPA Cleanup grant funded cleanup activities at Riverside Park Parcel 3 (BF00E02493). This grant was integral to the re-opening of that section of the park, paving the way for the city to garner almost \$16 million in public and private funds to redevelop the park.

2) A FY 2019, USEPA Brownfield Community Wide Assessment grant (BF00E02492) enabled the city to assess 12 brownfield sites on key commercial corridors resulting in the city's first comprehensive brownfield inventory to prioritize and market brownfield sites.

3) The City of Detroit was awarded two Michigan EGLE-funded Brownfield grants, including a FY18 \$250,000 grant to redevelop a former brownfield site on the Eastside, which leveraged an additional \$12,511,177 in private funds. A 2020 EGLE Brownfield grant of \$1,000,000 will enable the redevelopment of a former manufacturing site in southwest Detroit. Environmental response activities and due care are underway. The project expects to leverage an additional \$15,000,000 in private funds.

Reporting Requirements: BSEED completed FY15 grant assessment activities at Riverside Park within budget. All submittals were provided on time, accepted and approved by the Region 5 project manager. An extension was requested by the city and granted by EPA to July 31, 2019 due to sampling difficulties and additional requirements imposed by EGLE. BSEED-EA expended the majority of the grant funds and achieved the expected results of the grant. The project was updated in ACRES and a final report was completed and submitted at the close of the grant. The FY19 Cleanup Grant for Riverside Park Parcel 3 is in compliance with all grant requirements, work plan, schedule and all terms and conditions of the current grant including quarterly and ACRES reporting. It is expected to be completed on time and within budget. The site stabilization and remaining due care activities will exhaust the remaining funds (\$98,170.51) by September 30, 2022. The USEPA CWA grant will be completed within budget and on time in compliance with all grant requirements, work plan, schedule and all terms and conditions of the current grant including quarterly and ACRES reporting. We anticipate completing assessments of fourteen sites preparing them for redevelopment of shovel ready projects or preparation for future projects. The FY18 EGLE grant closed out in 2021 within budget. The site was remediated and developed into a much-needed grocery store in the East Jefferson Commercial Corridor. The FY20EGLE grant is on schedule and within budget.

GDI Grants and Reporting:

GDI has secured more than \$1 million in grant funding for local and regional environmental and sustainability projects focused on workforce development, youth education, COVID mitigation/avoidance, climate resiliency outreach and education. On all of its grants, GDI has successfully managed the agreements and met reporting requirements as evidenced by its continued selection to complete grant-funded projects. Grant secured, managed and successfully implemented by GDI include: National Institute for Environmental Health Sciences \$52,000 grant for Hazardous Materials Worker Health and Safety Training; National Institute of Environmental Health Sciences \$50,000 cooperative agreement for an Environmental Careers Training Program; Midwest Environmental Justice Network \$180,000.00 grant to support for GDI's COVID-19 related activities. Michigan Department of Health and Human Services and Michigan Public Health Institute \$10,000 grant supporting GDI's work to educate about mitigation strategies that reduce environmental exposures that may cause asthma flare-ups in childcare facilities. Detroit Department of Employment Solutions \$120,000 grant to train Justice Involved Residents to train workers for environmental careers.

6B. Reporting Requirements: BSEED's Project Manager will be in charge of preparing the quarterly reports to the EPA. The reports will be updates on tracked expenses, proposed updates to plans and timelines, and explanation of activities to date. The Project Manager and the city's Building Safety Engineering Environmental Department Environmental Affairs (BSEED-EA) will work with the Office of Finance to initiate the payment process beginning with the Federal

Automated Standard Applications of Payment (ASAP) system and follow it through Oracle to the issuance of a check. Internal controls within the system prevent overpayments and provide various approvals to ensure appropriate spending. BSEED-EA will work directly with an ODG grants program analyst who will routinely track and report the status of the grant. The project manager will provide regular updates to ODG on grant requirements including reporting, spending and performance based on goals outlined in the cooperative agreement.

6C. Staff Expertise

Malik Johnson will serve as the Project Manager. Malik has worked for Detroit's BSEED-EA since 2018 as an Environmental Specialist I and has represented the City of Detroit on various community based environmental groups including the Air Quality Learning Collaborative and Organic Recycling and Water subcommittees of the Green Task Force. He serves on the Industry Review Board, Detroit Climate Strategy Municipal Workgroup, and Detroit Land-based Business Workgroup. He also manages the permitting, inspections, and enforcement of the City's Bulk Solid Material Facility Ordinance, the City's current fugitive dust ordinance. Mr. Johnson earned his Bachelor of Science in Chemical Engineering from Wayne State University with a focus on modeling and simulation.

Crystal Rogers is BSEED's General Manager of Environmental Affairs. She has over 20 years of professional experience managing projects in the fields of public health, solid and hazardous waste management, and environmental management. Mrs. Rogers has dealt with environmental regulatory compliance and policy matters at the county, state, and federal levels. She manages a staff whose duties vary from site inspections and remediation to compliance matters that directly affect the health and safety of residents. She holds a Master's of Science in Chemistry from Tuskegee University (May 2000) with emphasis on industrial waste water treatment.

Donele Wilkins is the founder of the Green Door Initiative (GDI) and will serve as the Project Director for GDI's subaward. For more than 30 years, she has managed successful non-profits, providing oversight of more than \$5 million in federal and local grants including NIEHS, DOL and HUD CDBG awards. Ms. Wilkins will provide oversight of the Community Outreach component of the project to ensure compliance of the award and project integrity.

Leila Mekias will serve as the Project Manager for Green Door Initiative. She will provide the day-to-day operations of the outreach components of the project. Ms. Mekias has ten years of experience managing projects to foster climate preparedness and sustainable development. Her previous experience includes working for the City of Detroit Health Department Health and Detroiters Working for Environmental Justice.

7. Budget

7A. Budget Detail

Line Item & Itemized Cost	EPA Funding 3 Year Total
Equipment	
10 monitors (5 PM10, 5 PM 2.5, \$15,375 average unit price)	\$158,030
Monitor Installation Materials (mounting and staging)	\$10,000
TOTAL EQUIPMENT	\$168,030
Supplies	
Monitor Tape (\$80 per roll)	\$8,000
Printing for Community Outreach (\$.16 per copy)	\$896
TOTAL SUPPLIES	\$8,896
Contractual	
Environmental Consultant Contract	\$80,000
Green Door Initiative SubAward	\$225,339
TOTAL CONTRACTUAL	\$305,339
TOTAL PROJECT COST	\$482,265

7B. Reasonableness of Costs

Equipment: The City of Detroit will procure five PM10 and five PM2.5 sensors, which are estimated at \$158,030.10 based on the average cost from 10 quotes. The average unit price for the monitors is approximately \$18,500 for PM 10 and \$12,250 for PM2.5. An initial equipment cost of \$10,000 is required in year 1 to cover materials for mounting and marking off the staging areas for the monitors.

Supplies: The cost of additional monitoring supplies (monitoring tape) will cost around \$800 for the first year, valued at \$80 per roll of monitoring tape for each monitor (10 monitors) every two months. The monitors come with two rolls of monitoring tape. Monitoring tape for year two will cost \$5,248 or \$80 x 6 replacements x 10 monitors, and will cost \$2,848 in year three or \$80 x 3 replacements x 10 monitors. Printing for community meetings is expected to cost \$0.16 per sheet, with an expected need for 200 sheets per meeting, of which there will be two meetings in each of the seven council districts in both Years 2 and 3.

Contractual:

Environmental Consultant: The City of Detroit will create a RFP and procure a qualified environmental consultant, who will develop criteria for deploying air quality monitors, create a model for location of equipment, verify data weekly and develop the final report. It is expected that the cost of the Contractor/Consultant will be \$80,000 total, with \$30,000 in the first year based upon past air quality monitoring work contracted by the City of Detroit, and \$20,000 in years two and three to perform weekly data validation and development of the final report in year 3. Cost reduction for maintenance and collection of data from monitors will be done by subcontracting trained professionals through GDI.

Green Door Initiative (GDI): A sub-award will be made to GDI to provide education, outreach and community engagement. Costs include:

\$90,000 for Personnel Costs, based on the following FTE% and positions.

	Y1		Y2		Y3	
Program Manager	.38 FTE	\$28,860	.20 FTE	\$14,430	.20 FTE	\$14,430
Outreach/Trainer	.25 FTE	\$0	.25 FTE	\$14,040	.25 FTE	\$14,040
Project Assistant	.10 FTE	\$1,140	.11FTE	\$1,530	.11FTE	\$1,530

\$7,500 a year to cover health insurance and other related benefits for the listed positions.

\$41,600 for Contractors - GDI will select Detroit residents in years 2 and 3 to provide Air Monitor Installation and maintenance. Contractors will be selected from the Green Door Initiative Environmental Careers Workforce Training Program.

\$17,654 for Supplies - This includes marketing materials including brochures, posters and flyers for distribution throughout neighborhoods, along with other consumable supplies related to in-person training. This estimate also includes the purchase of two Computer tablets at \$750 each for installation and maintenance.

\$17,500 for Communications - This includes fees for local information outlets, creation of Infographics, newsletters and distribution, printing, writing and editing. Also, earned media opportunities including the purchasing of radio advertisements.

\$15,600 for Other - For specialized technical support and expertise required to provide ongoing Technical Assistance as technology changes and problems arise in managing the ongoing monitoring and maintenance needs in the field.

\$20,485 for Indirect Costs - 10% of the budget to cover liability insurance, fiscal and operational needs

7C. Expenditure of Awarded Funds

The project team, led by BSEED's project manager, will work closely with the City of Detroit's Office of Contracting and Procurement (OCP) to ensure timely approvals and expenditures. Both GDI and the City have a history of efficient grants management as shown in the Past Performance section. The project team will also receive support from the City's Office of Development and Grants, which is responsible for supporting grants implementation through shared accountability for project success, including project planning, procurement support, and monitoring of performance milestones.

City of Detroit City Wide Particulate AQM Network Project Quality Assurance/Quality Control Statement

The City of Detroit is committed to the safety and welfare of our residents. As such, all data collected and presented to its residents and stakeholders shall be maintained and verified at all times during the project. All data collection and verification will be performed by a trained professional or qualified environmental consultant.

Quality Assurance (QA)

The City of Detroit is committed to make certain that all data is collected and assessed to be in line with National Ambient Air Quality Standards (NAAQS) for particulate levels. Quality assurance is an ongoing process and will be overseen by the project manager.

The project manager will be a trained member of the City of Detroit Buildings Safety Engineering and Environmental Department Environmental Affairs (BSEED-EA) with a minimum of a bachelor's degree in environmental science, environmental engineering or a closely related field or be a registered professional engineer in civil, environmental, or closely related field. A qualified environmental consultant will be retained through the City of Detroit RFP process, and will be responsible for the modeling, data validation, and planning for placement of air quality monitors. Planning, implementation and coordination of this project will be conducted by the project manager for the life of this project, as assisted by community partners and qualified environmental consultant(s). A project scope of work (SOW) will be created, maintained, and updated by the project manager.

All monitors will be federal equivalent method (FEM) monitors for PM₁₀ and PM_{2.5} as determined by the List of Designated Reference and Equivalent Methods issued December 15, 2021 and maintained and calibrated as determined by need or planned.

Quality Control (QC)

Quality Control (QC) is focused on the product. The QC for this project is an outcome-driven process. The main product of this project will be the qualitative particulate matter of less than or equal to 10 micrometers in diameter (PM₁₀) and particulate matter less than or equal to 2.5 micrometers in diameter (PM_{2.5}) analysis and modeling of dispersion and air quality as pertains to particulate matter throughout the city of Detroit. These products will be made available through near-real time reporting on websites and biannual documents. These will be generated and maintained by City of Detroit staff, trained professionals, and qualified environmental consultant(s). The following are the quality standards that will be upheld by the City of Detroit, its community partners, and contracted professionals.

Design and Planning:

- Monitor locations to be planned and verified through a living document prepared by a qualified environmental consultant. Particulate dispersion modeling for planning will be determined through use of AERMOD.
- All data to be collected by verified FEM PM₁₀ and PM_{2.5} monitors on a 1-hour scale to be in-line with current State of Michigan monitoring programs.

- Monitors to be installed, maintained, and calibrated by trained professionals, who will be trained on procedures by qualified environmental consultant.
- Data collection will be conducted on a weekly basis and then verified by qualified environmental consultant prior to release.

Review:

- During review, project manager will compare documents and criteria with Project Scope of Work for air quality.
- Review modeling analysis to verify all data collected is within acceptable bounds, i.e. within expected 95% confidence interval.

All documents will be collected and maintained in digital format. Documents will be made available to shareholders and residents through City of Detroit maintained curated website.

Donele Wilkins
Founder/CEO Green Door Initiative
Detroit, MI

Executive Leadership and Operations Management Experience Summary

- Over 20 years' experience as business owner and Chief Executive
- Exceptional communication and leadership skills – a visionary
- Proven track record of building, leading, training and overseeing multidisciplinary teams
- Proven track record of fiscal management, growing and sustaining operations
- Exceptional record of building cooperative relationships and partnerships
- Recognized industry leader and mentor who produces results at the local and national levels
- Strong strategic planning and implementation skills
- Experienced at fundraising via major donors and grant writing
- Creative problem solver who is comfortable initiating and embracing change
- Proven track record of starting and expanding programs for over two decades
- National and local leader in the areas of conservation advocacy, fundraising, policy reform, litigation, research, education and grassroots campaigns

Professional Experience Highlights

- Controlled an operational budget of \$2.1M
- Managed the day-to-day operations for an office staff of 15 with an operating budget of \$1.8M
- Founded and served as the CEO of two non-profits, before starting
- Developed and implemented company business plans
- Served on many local and national executive boards, advisory boards, and advisory committees
- Successful execution of multiple programs within budget and on schedule
- Managed, led, and developed a team of 70 responsible for implementing community-based programs on a national level
- Managed, led, and developed a staff of 30 responsible for conservation advocacy, litigation, research, education, grassroots organization, board relations, affiliate relations, lobbying and fundraising
- Developed and implemented a national strategy for expanding outreach to urban, tribal and Hispanic youth and their families
- Led several statewide and national coalitions for environmental protection
- Taught fundraising and professional development skills as an adjunct instructor for the Detroit Entrepreneurial Institute
- Led and collaborated with over 27 community-based organizations in the greater Detroit area to raise awareness, engage stakeholders, and address environmental health and justice issues
- Developed working relationships with 5 state-wide affiliate organizations to build consensus and support for environmental programs
- Developed and successfully executed \$1,080,000 workforce development focused on the Environmental/Green Collar Sector. The Environmental Technician program has trained over 600 hard to employ individuals with various barriers to employment including formally incarcerated individuals maintaining a 92% completion and job placement rate.

Program Development

- Created Workforce Development Program focused on Environmental / Green Jobs Sector

- Created Several Youth Leadership Programs focused on conservation and environmental stewardship
- Developed Core Curriculum for Community Based Environmental Education and Awareness Projects
- Designed and Implemented Case Management Projects for the City of Detroit Lead Elimination Projects
- Participated on several Community Based Participatory Research Projects

Executive Leadership and Board Experience at Local and National Levels

- Advisor, Detroit Climate Equity Advisory Council
- Advisor, Wayne County Sustainability Advisory Council
- Co-Principal Investigator, Community Action to Promote Healthy Environments (CAPHE)
- Provided Technical Assistance to several Community Development Corporations in the City of Detroit
- Appointee to the Detroit Brownfield Redevelopment Authority since 2000
- Appointee to the Detroit Works Project- Community Advisory Committee
- Detroit City Council Appointee, Detroit Brownfield Redevelopment Authority
- Board Member, National Black Environmental Justice Network
- President, Colin Powell Public School Academy Board of Directors
- Fellow, Eureka Fellows
- Authored *Build Up Detroit* business plan for Detroiters Working for Environmental Justice
- Fellow, Great Lakes Conservation Leadership Project
- Member, Michigan Environmental Justice Coalition
- Board Member, Detroit Urban Research Center
- Advisory Committee Member, Community Action Against Asthma Project, University of MI
- Member, National Environmental Justice Advisory Council
- Advisory Committee Member, Michigan Department of Environmental Quality
- Mayoral Appointee, Detroit Works Project, Community Advisory Committee
- Member, NEJAC Research Workgroup
- Advisory Committee Member, University of MI, Health Impact Assessment Project
- Co-Lead, Community Outreach and Engagement Core, University of MI Environmental Health Science Center
- Fellow, REACH the Decision Makers, Detroit Reproductive Environmental Advocacy Matters (DREAM)

Employment History

FOUNDER/PRESIDENT/CEO 313 Solar LLC	2010- PRESENT DETROIT, MI
FOUNDER/PRESIDENT/CEO THE GREEN DOOR INITIATIVE (GDI)	2010- PRESENT DETROIT, MI
Founder/Executive Director DETROITERS WORKING FOR ENVIRONMENTAL JUSTICE (DWEJ)	1996-2010 DETROIT, MI

Honors

Crains Business 2022 Notable Leader In Sustainability - Detroit, MI
 MLK –2022 Servant Leadership in Building a Beloved Community, Ann Arbor, MI
 Detroit City Council Green Taskforce 2018 Lifetime Achievement Award
 Black History Month Award, University of MI Flint, Flint, MI

Spirit of Detroit Award, Detroit, MI
Roselyn Cruthis Community Health Award, Detroit, MI
Conservation Achievement Award, National Wildlife Federation, Washington, D.C.
Green Works Special Recognition, Detroit MI
Spirit of Detroit Award, Detroit, MI
The William “Bill” Lucy Excellence in Coalition Building Award, Detroit, MI

Education

WAYNE STATE UNIVERSITY (Major: Interdisciplinary Studies)

DETROIT, MI

Leila Mekias

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EXPERIENCE

Southwest Detroit Environmental Vision

Detroit, MI

Project Manager of Research Initiatives, Air Quality Section

September 2019-December 2019

- Manage a grant-funded project to investigate the impact of air pollutants on produce within two community gardens in a densely populated industrial community in Detroit.
- Lead efforts to ensure community stakeholders inform development of study design and participate in implementation of research.

City of Detroit Health Department

Detroit, MI

Environmental Health Fellow

August 2017-August 2019

- Developed the use case and implementation plan for a pilot to measure neighborhood-level air quality using low-cost air sensors. Data would inform health and environmental interventions to reduce exposure to air pollution and asthma occurrences across Detroit.
- Led City team defining the public health emergency response to extreme heat events. The project makes cooling centers available to protect residents from the health effects of extreme heat.
- Advised department leadership on environmental policies that impact health. For example, led department response to the proposed MI Lead and Copper Rule and to a variance request from the local fugitive dust ordinance.

Detroiters Working for Environmental Justice

Detroit, MI

Program Coordinator

June 2013-May 2017

- Co-author of the Detroit Climate Action Plan (CAP), a document drawing from the subject expertise of the six working groups which comprised the Detroit Climate Action Collaborative. Co-convened technical experts, business executives, and community leaders to create the CAP.
- Designed and supported a community engagement process ensuring the CAP reflected community input and met technical objectives.
- Analyzed and advocated for local and national climate policies that would promote greenhouse gas reductions and environmental justice, such as the Detroit Greenhouse Gas ordinance and an environmental justice analysis of the Clean Power Plan.
- Led the Detroit Youth Climate Summits, piloting as an ad-hoc, low budget event and culminating as a yearly collaboration with Detroit Public Schools that earned recognition from the White House Office of Science and Technology Policy and COP 21.

EDUCATION

University of Michigan School of Natural Resources and Environment

Ann Arbor, MI

- **Master of Science**, Natural Resources and Environment May 2013
- **Research Assistant, UNESCO, Man and the Biosphere Program**: Developed database to support analysis of variables affecting sustainable development outcomes.
- **Master's Project**: Conducted an integrated assessment to evaluate the adaptive capacity of four Great Lakes cities facing the effects of climate change. Proposed recommendations to increase adaptive capacity.

Southern Methodist University

Dallas, TX

- **Bachelor of Arts**, Environmental Studies and International Studies May 2010
- **Intern, Natural Gas Partners**: Developed briefs about investment opportunities within water management and agricultural resource preservation.

ACCOMPLISHMENTS

- Graduate of the Great Lakes Leadership Academy Emerging Leader Program in 2017
- Co-author: Samson, N., Hill-Knott, K., Smith, D., Mekias, L., Howrani Heeres, J., & Sagovac, S. (2014). Planning for Climate Change in Legacy Cities: the Case of Detroit, Michigan. *Michigan Journal of Sustainability*, 2

MALIK JOHNSON

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EXPERIENCE

FEB. 2018 – PRESENT

ENVIRONMENTAL SPECIALIST, CITY OF DETROIT

Design and implement procedures and programs designed to facilitate environmental protection, conversion, and use of natural resources in compliance with environmental laws at all levels. • Monitor and inspect sites of environmental impact throughout the City of Detroit, including large-scale industrial sites.

- Department representative for Climate Action Agenda Initiative
- Responsible for the management and enforcement of the fugitive dust ordinance for the City of Detroit, including permitting, inspections, and oversee modifications of over 40 existing facilities.
-

JAN. 2017 – JAN. 2018

TEMPORARY PROFESSIONAL, WAYNE STATE UNIVERSITY – COMPUTER & INFORMATION TECHNOLOGY

Public facing support specialist for the Learning Management System team, working directly with instructors and teaching assistances in online classroom design. Working directly with other departments in C&IT department to provide instruction to new students and faculty on any systems used for education or education design.

JAN. 2015 – DEC. 2016

STUDENT ASSISTANT, WAYNE STATE UNIVERSITY – COMPUTER & INFORMATION TECHNOLOGY

Provide support to instructors related to Blackboard Learning Management system and related classroom support technology. Public facing work with emphasis on speed and efficiency, relying upon technological experience and knowledge to provide instruction to customers.

EDUCATION

DECEMBER 2016

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING, WAYNE STATE UNIVERSITY

MAY 2013

BACHELOR OF SCIENCE IN CHEMISTRY (UNCOMPLETED), MOREHOUSE COLLEGE

General Chemistry 1&2 with Lab, Organic Chemistry 1&2 with Lab, General Physics with Lab, Basic Engineering with Lab

JUNE 2011

HIGH SCHOOL DIPLOMA, SOUTHFIELD-LATHRUP SENIOR HIGH SCHOOL

SKILLS

- MATLAB
- Visual Basic
- Autodesk
- Minitab
- Gaussian 03
- UV and Mass Spectrometry •
- Neutralization and disposal of waste •
- Heat and Mass Transfer Analysis • Aloha
- Leadership
- Titration
- Technical report writing
- Tensile and Plastic Testing
- Crystal Synthetization
- Aspen HYSYS
- Arduino
- Microsoft Office (Word, Excel, PowerPoint, ect.)
- Photoshop
- Minitab
- EPA WAR
- Public Speaking and Presentation Design •
- ARCGIS
- Lean Six Sigma Green Belt

VOLUNTEERING

Metropolitan Museum of Design Detroit – April 2021 – Present

- Social Council Representative and Event Coordinator
- Community Outreach and Education Assistant

Tutoring – May 2014 – Present

- Provided tutoring to incoming college students and students with retention issues. Additionally, focused on underrepresented groups.
- Focused upon Pre-Calculus, Calculus I, Introductory Physics, and basic engineering topics.

Gender & Equity Committee of the Presidents Commission on Status of Women (COSW) – Oct. 2016 – Oct. 2017

- Assisted in acquiring resources for discussions and presentations, working with committee members in development of presentations and research.
- Provided technological support for physical media and resources used in presentations.

FUTURE Society of Women Engineers – April 2015 – April 2016

- Hosted and conducted workshops designed to introduce and engage female students from sixth to twelfth grade in various STEM fields in the hopes to increase the representation of women in STEM majors and careers.

CRYSTAL ROGERS
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EXPERIENCE

8/00 – Present City of Detroit Detroit, MI

General Manager (4/22-Present)-

Coordinate Environmental Affairs and Environmental Enforcement. Oversee the development, implementation, and maintenance of a new customer request management system. Serve as liaison with federal, state and local stakeholders on environmental compliance, programming and projects.

Environmental Specialist III

Enforcement Manager (6/09-4/22)-Provide community outreach, training activities and code enforcement to familiarize residents with ordinance requirements on the storage, handling and transport of solid waste and property maintenance.

GIS Project Manager (5/07-6/09)-Make possible the in operation and maintenance of a GIS program to leverage known data using geo-statistics to investigate and address site specific environmental and land use issues impeding redevelopment.

Manager (5/04-5/07)

In addition to Principal Statistician duties supervise Office of Health Information, Policy, Planning and Evaluation, assist with grant reporting and development of public health initiatives. Statistical reporting and interpretation, presentation of information in valid and useable manner, program evaluation, and monitoring.

Statistician

Principal (5/02-5/04)-In addition to senior duties supervise employees engaged in statistical work, coordinate and integrate the separate data gathering entities within the department. Develop and implement of quality assurance measures for Office of Health Policy, Planning and Grants Management

Senior (8/01-5/02)-In addition to Intermediate duties, developed and implemented statistical standards, methods, and projects. Geographic analysis of vital records data for spatial patterns. Devised ways to disseminate public health data including content development for web page and redesign of data book

Intermediate (8/00-8/01)-Collected, summarized, analyzed, and interpreted quantitative data specifically related to the health of the residents of the City of Detroit. Included assigning ICD-10 underlying cause of death codes, creating and manipulating databases, reporting to the CDC, and preparing statistical maps and reports

5/12 – 12/16 Oakland Community College District Southfield, MI

Adjunct Chemistry Instructor

Instructed and evaluated student performance in general and organic chemistry lecture and laboratory.

8/02 – 12/10 Present Wayne County Community College District Detroit, MI

Adjunct Chemistry Instructor

Instructed and evaluated student performance in general and organic chemistry lecture and laboratory.

EDUCATION

Tuskegee University Tuskegee, AL

5/99 - MS Chemistry (Analytical)

5/96 - BS Chemistry

Updated 2/2022